

method. The second method is correct for holes too small to be ground conveniently. The third method is inadvisable, as the grinding wheel, no matter how fine, leaves innumerable very fine scores and high spots. These high spots soon wear away leaving the hole oversize. The last method is correct and should be used whenever possible.

MOULD In Fig. 16 is shown a lead lap with a steel tapered spindle, and a convenient mold for casting the laps. This mold is provided with a base having a hole to receive the spindle that the lap is cast on. A number of laps can be cast in this mold at one heating of the metal, and the laps are afterwards turned to the size required. Fig. 17 represents a familiar form of cast-iron lap. This lap is split in three places and provided with a taper-end screw for expanding it to compensate for wear.

Lead Lap and Mold
used for Casting it

Laps should be charged before using — not while they are in use. A good way to charge a lap is to lay it on a cast-iron plate on which some of the abrasive material has been sprinkled. A cast-iron plate small enough to be conveniently handled is then held on the lap and moved back and forth with a regular motion. The lap being rolled between the two surfaces picks up a certain amount of the abrasive material. A lead lap can be charged in this manner very rapidly, as the grains of abrasive material readily imbed themselves in the soft metal. A cast-iron lap, being of a harder material, requires more time to

properly charge.

Until the last few years
emery was the abrasive
generally used for lapping. At
the present time, however,
artificial abra-